

Notice of Allowability

Application No.

10/535,372

Examiner

Chukwuma O. Nwaonicha

Applicant(s)

GRUTZMACHER ET AL.

Art Unit

1621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 18 December 2006.
2. ☒ The allowed claim(s) is/are 1-11.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

THURMAN K. PAGE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 4600

DETAILED ACTION**Current Status**

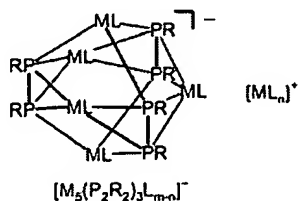
1. This action is responsive to Applicants' communication of 18 December 2006.
2. Receipt and entry of Applicants' amendment is acknowledged.
3. Claims 1-11 are in active consideration in the application.
4. The 102 rejections have been withdrawn because applicants have amended the claims to overcome the rejection.

Allowed Claims

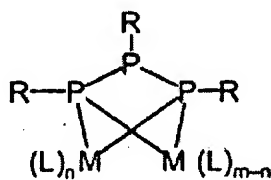
Claims 1-11 are allowable over the prior art of record.

Reason For Allowance

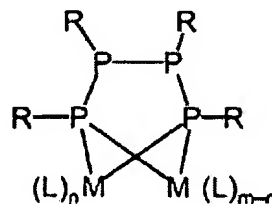
The following is an examiner's statement of reasons for allowance: Applicants claim a process for preparing a cycloorganylphosphphane of the general formula $(R_1P)_n$ with activated zinc in an organic solvent or with sodium in a non-polar organic solvent in the presence of tetramethylethylenediamine, and a di(alkali metal/alkaline earth metal) oligophosphanediide of formula 1, 2 or 3;



formula 1



formula 2



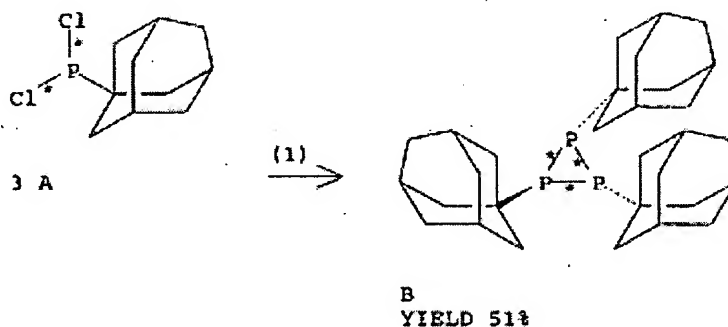
formula 3

wherein all the variables are as defined in the claims. The process for preparing a cycloorganylphosphphane of the general formula $(R_1P)_n$ and a di(alkali metal/alkaline

Art Unit: 1621

earth metal) oligophosphanediide of formula 1, 2 or 3 were neither found to be obvious nor anticipated by the prior art of record.

The closest prior art is Goerlich et al., {Tris-1-Adamantylcyclotriphosphine and Tetrakis-1-Adamantylcyclotetraphosphine: Two Peradamantylated Examples from the Cyclopolyphosphine Series (RP)_n, Zeitschrift Fuer Anorganische und Allgemeine Chemie, 1994, 620 (1), 173-176}. Goerlich et al. teach a process for the preparation of a cycloorganylphosphsphane as shown below by reacting a halocompound and sodium under reflux condition.

$$RX(1) \text{ OF } 3 \quad 3 \text{ A} \implies \text{B}$$


formula 2

Applicants process for making cycloorganylphosphsphane differs from the process of Goerlich et al. in that applicants claim a process that employs tetramethylethylenediamine while Goerlich et al. process is conducted without this particular compound. These differences are not readily apparent and would not have been suggested to one of ordinary skill.

All claims (1-11) are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chukwuma O. Nwaonicha whose telephone number is 571-272-2908. The examiner can normally be reached on Monday thru Friday, 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman K. Page can be reached on 571-272-0602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chukwuma O. Nwaonicha, Ph.D.
Patent Examiner
Art Unit: 1621

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